

## Tong (Tony) Lee

MS 300-323, Jet Propulsion Lab  
4800 Oak Grove Drive, Pasadena, CA 91109

Voice: (818) 354-1401 Fax: (818) 354-0966  
E-mail: Tong.Lee@jpl.nasa.gov

### Education

- B.S., Mechanics, Sun Yat-Sen (formerly Zhongshan) University, PRC (1984)
- M.S., Marine Studies, University of Delaware (1989)
- Ph.D., Oceanography, University of Rhode Island (1994)

### Professional Experience

- Jet Propulsion Laboratory
  - Principal scientist (2006-present)
  - Research scientist (1999-2006)
  - Scientist (1996-1999)
- Massachusetts Institute of Technology
  - Postdoctoral research associate (1994-1996)

### Research Interests

- Ocean circulation and its relation to climate variability on seasonal-to-decadal time scales
- Ocean and coupled ocean-atmosphere data assimilation
- Adjoint modeling and sensitivity analysis

### Professional Services

- International GODAE Steering Team member (2003-2008)
- International CLIVAR and IOC/GOOS Indian Ocean Panel member (2006-present)
- US CLIVAR Phenomena, Observations, and Synthesis Panel member (2007-present)
- US Argo Program panel member (2004-present)

### Selected peer-reviewed publications

1. **Lee, T.**, O. Wang, W.-Q. Tang, and W.T. Liu, 2008: Wind stress measurements from the QuikSCAT-SeaWinds scatterometer tandem mission and the impact on an ocean model. *J. Geophys. Res.*, doi:10.1029/2008JC004855, in press.
2. Halkides, D., and **T. Lee**, 2008: Mechanisms controlling seasonal-to-interannual mixed-layer temperature variability in the southeastern tropical Indian Ocean. *J. Geophys. Res.*, in press.
3. McPhaden, M.J., G.R. Foltz, and **T. Lee**, et al., 2008: Ocean-atmosphere interaction during Cyclone Nargis. *Eos Trans. American Geophys. Union*, on press.
4. Volkov, D. L., **T. Lee**, and L.-L. Fu, 2008: Eddy-induced meridional heat transport in the ocean, *Geophys. Res. Lett.*, doi:10.1029/2008GL035490.
5. **Lee, T.**, and M. J. McPhaden, 2008: Decadal phase change in large-scale sea level and winds in the Indo-Pacific region at the end of the 20<sup>th</sup> century. *Geophys. Res. Lett.*, 35, L01605, doi:10.1029/2007GL032419.
6. Cabanes, C., **T. Lee**, and L.-L. Fu, 2008: Mechanisms of interannual variations of the meridional overturning circulation of the North Atlantic Ocean. *J. Phy. Oceanogr.*, 38, 467-480.

7. Kim, S.-B., **T. Lee**, I. Fukumori, 2007: Mechanisms controlling the interannual variation of mixed layer temperature averaged over the NINO3 region. *J. Clim.*, 20, 3822-3843.
8. Halkides, D. J., W. Han, **T. Lee**, and Y. Masumoto, 2007: Effects of sub-seasonal variability on seasonal-to-interannual Indian Ocean meridional heat transport, *Geophys. Res. Lett.*, 34, L12605, doi:10.1029/2007GL030150.
9. Fukumori, I., D. Menemenlis, **T. Lee**, 2007: A near-uniform basin-wide sea level fluctuation of the Mediterranean Sea. *J. Phys. Oceanogr.*, 37, 338-358.
10. Kim, S.-B., I. Fukumori, **T. Lee**, 2006: The closure of the ocean mixed layer temperature budget using level-coordinate model fields. *J. Ocean. Atmos. Tech.*, 23, 840-853.
11. **Lee, T.**, and W. T. Liu, 2005: Effects of high-frequency wind sampling on simulated mixed-layer depth and upper-ocean temperature. *J. Geophys. Res.*, 110, C05002, doi: 10.1029/2004JC002746.
12. Menemenlis, D., I. Fukumori, and **T. Lee**, 2005: Using Green's functions to calibrate an ocean general circulation model. *Mon. Weather. Rev.*, 133, 1224-1240.
13. Kim, S.-B., **T. Lee**, and I. Fukumori, 2004: The 1997-99 abrupt change of the upper ocean temperature in the northcentral Pacific. *Geophys. Res. Lett.*, 31, L22304, doi:10.1029/2004GL021142.
14. **Lee, T.**, 2004: Decadal weakening of the shallow overturning circulation in the South Indian Ocean. *Geophys. Res. Lett.*, 31, L18305, doi:10.1029/2004GL020884.
15. **Lee, T.**, I. Fukumori, and B. Tang, 2004: Temperature advection: internal versus external processes. *J. Phys. Oceanogr.*, 34, 1936-1944.
16. Fukumori, I., **T. Lee**, B. Cheng, and D. Menemenlis, 2004: The origin, pathway, and destination of NINO3 water estimated by a simulated passive tracer and its adjoint. *J. Phys. Oceanogr.*, 34, 582-604.
17. Wang, O., I. Fukumori, **T. Lee**, and G. Johnson, 2004: Eastern equatorial Pacific Ocean T-S variations with El Nino. *Geophys. Res. Lett.*, 31, L04305. doi:10.1029/2003GL019087.
18. **Lee, T.**, and I. Fukumori, 2003: Interannual to decadal variation of tropical-subtropical exchange in the Pacific Ocean: boundary versus interior pycnocline transports. *J. Climate*, 16, 4022-4042.
19. **Lee, T.**, I. Fukumori, D. Menemenlis, Z. Xing, and L.-L. Fu, 2002: Effects of the Indonesian Throughflow on the Pacific and Indian Ocean. *J. Phys. Oceanogr.*, 32, 1404-1429.
20. **Lee, T.**, J.-P. Boulanger, A. Foo, L.-L. Fu, and R. Giering, 2000: Data assimilation by an intermediate coupled ocean-atmosphere model: application to the 1997-1998 El Nino. *J. Geophys. Res.*, 105, 26063-26087.
21. **Lee, T.** and J. Marotzke, 1998: Seasonal cycle of meridional overturning and heat transport of the Indian Ocean. *J. Phys. Oceanogr.*, vol. 28, 923-943.
22. **Lee, T.** and J. Marotzke, 1997: Inferring meridional mass and heat transports of the Indian Ocean by fitting a GCM to climatological data. *J. Geophys. Res.*, vol. 102, 10585-10602.
23. **Lee, T.** and P. Cornillon, 1996: Propagation and growth of Gulf Stream meanders between 75 and 45W. *J. Phys. Oceanogr.*, vol. 26, 225-241.
24. **Lee, T.** and P. Cornillon, 1995: Temporal variation of meandering intensity and domain-wide lateral oscillations of the Gulf Stream. *J. Geophys. Res.*, vol. 100, 13603-13613.